

【財金所】

1-10 題為單選題，每題三分。

1. Under the signaling hypothesis, the information content of a dividend increase generally signals that:
 - (A) the firm has a one-time surplus of cash.
 - (B) management believes that the future earnings of the firm will be strong.
 - (C) the firm has few, if any, net present value projects to pursue.
 - (D) the firm has more cash than it needs due to sales declines.
2. Chunky Robot Company recently completed a merger. When valuing the combined firm after the merger, which of the following is an example of the type of common mistakes that can occur?
 - (A) The inclusion of cash flows that are incremental to the decision.
 - (B) The use of projected combined firm's discount rate when valuing the cash flows of the new company.
 - (C) The use of projected book values in valuing the newly combined firm.
 - (D) The inclusion of all relevant transaction costs associated with the acquisition
3. Which of the following statements about the pricing of risk is WRONG?
 - (A) The Capital Asset Pricing Model or Security Market Line is a prominent means of determining the appropriate risk adjusted, required return for valuing firms.
 - (B) In an efficient market, expected return will equal to realized return.
 - (C) A $\beta > 1$ indicates that a firm's stock is riskier than the market portfolio.
 - (D) The risk premium on the market reflects both the average compensation of risk bearing.
4. The Dirty Apple Co. has an unlevered cost of capital of 11%, a cost of debt of 7%, and a corporate tax rate of 35%. According to the M&M propositions with tax, what's the firm's debt-equity ratio if its cost of equity is 12.5%?

- (A) 0.39 (B) 0.46 (C) 0.58 (D) 0.77

5. Which of the following statement about the financial planning is WRONG?

- (A) Projected future financial statements are called Pro forma statements.
(B) In general, the internal growth rate is greater than the sustainable growth rate
(C) Increase profit margin will increase the sustainable growth rate.
(D) Financial planning helps in forcing consistency across the divisions within the firm.

6. One of the indirect costs to bankruptcy is the incentive toward underinvestment.

Following this strategy may result in:

- (A) the firm always choosing projects with the positive NPVs.
(B) the firm turning down positive NPV projects that it would clearly accept in an all equity firm.
(C) stockholders contributing the full amount of the investment, but both stockholders and bondholders sharing in the benefits of the project.
(D) Both the firm always choosing projects with the positive NPVs; and stockholders contributing the full amount of the investment, but both stockholders and bondholders sharing in the benefits of the project.
(E) Both the firm turning down positive NPV projects that it would clearly accept in an all equity firm; and stockholders contributing the full amount of the investment, but both stockholders and bondholders sharing in the benefits of the project.

7. Covenants restricting the use of leasing and additional borrowings primarily protect:

- (A) the equity holders from added risk of default.
(B) the debtholders from the added risk of dilution of their claims.
(C) the debtholders from the transfer of assets.
(D) the management from having to pay agency costs.
(E) None of these.

8. An equity issue sold to the firm's existing stockholders is called:

- (A) a rights offer.
(B) a general cash offer.
(C) a private placement.

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- (D) an underpriced issue.
- (E) an investment banker's issue.

9. The green shoe option is used to:

- (A) cover oversubscription.
- (B) cover excess demand.
- (C) provide additional reward to the investment bankers for a risky issue.
- (D) provide additional reward to the issuing firm for a risky issue.
- (E) Both cover oversubscription and cover excess demand.

10. Potential investors learn of the information concerning the firm and its new issue from the:

- (A) pre-underwriting negotiating meeting.
- (B) red herring.
- (C) letter of commitment.
- (D) emails from their former finance professor.
- (E) rights offering.

11-16 題為問答與計算題：

11. Given the following information, leverage will add how much value to the unlevered firm per dollar of debt? (8%)

- » Corporate tax rate: 35%
- » Personal tax rate on income from bonds: 20%
- » Personal tax rate on income from stocks: 20%

12. The Jason Corp. is unlevered and is valued at \$640,000. Jason is currently deciding whether including debt in its capital structure would increase its value. The current cost of equity is 12%. Under consideration is issuing \$300,000 in new debt with an 8% interest rate. Jason would repurchase \$300,000 of stock with the proceeds of the debt issue. There are currently 32,000 shares outstanding and its effective marginal tax bracket is 34%. What will Jason's new WACC be? (10%)

13. You're prepared to make monthly payments of \$300, beginning at the end of this month, into an account that pays 8 percent compounded monthly. How many payments will you have made when your account balance reaches \$20,000? (7%)

14. You want to buy a luxurious car. The car dealer offers you two options. Option A states that, under the term “Zero-interest rate”, the down payment is \$200,000 and monthly payment \$40,000 for 60 months. For Option B, if you pay cash immediately, the total payment would be \$2,400,000 (A deduction of \$200,000 as a discount). Please calculate the implied interest rate for Option A. (10%)

15. Central Wind Power Co. asks you to evaluate a 3-year investment project named 『大風』. The cash flows of such a project are as following:

Year 0	Year 1	Year 2	Year 3
-\$3,000	\$2,400	-\$600	\$2,550

Suppose that the required rate of return is 15%

甲、Please calculate the modified internal rate of return (MIRR) of the project 『大風』, and show all the necessary formula and work, Do you accept or reject the project according to this criterion? (5 分)

乙、Suppose now there is another project named 『冷雨』, which has a life span as two years and the NPV \$227.86. The project 『大風』 and 『冷雨』 are mutually exclusive. How do choose between these two projects? Please use ONE (1) of acceptable methods and show all the necessary formula and work. Which project should you pick? (10 分)

16. 雙重股權結構 (Dual-Class Stock) 是美國部分公司用來確保創始人或家族的控制權的常見手段, Class A 股票, 一股代表公司股東會投票時的一票, 而 Class B, 一股代表公司股東會投票時的十票。假設你是一個創業投資者 (Venture Capitalist), 持有某個你投資的公司的 Class B 股票。請回答下面四個問題:

甲、何為創業投資者 (Venture Capitalist)? 他們與一般投資人有何不同? (5 分)

乙、為什麼創業投資者 (Venture Capitalist) 持有投資的公司的 Class B 股票是常有的事情? (5 分)

丙、若該公司即將首次公開發行 (IPO), 對市場發行 Class A 股票, 請解釋你會預期雙重股權結構對 Class A 股票 IPO 的價格有什麼影響? (5 分)

丁、臺灣的法規並不允許雙重股權結構, 請舉出一個臺灣公司可合法確保創始人與家族控制權的方法, 並簡述為何此一方法有效? (5 分)

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1. (B)

2. (C)

3. (B)

4. (C)

$$k_{SU} = 0.11, k_d = 0.07, T_c = 0.35$$

$$0.125 = 0.11 + (0.11 - 0.07) \times 0.65 \times \frac{D}{S_L}$$

$$\frac{D}{S_L} = 58\%$$

5. 缺

6. (B)

7. (B)

8. (A)

9. (E)

10. (B)

(B) 紅鯡魚 (全球性的媒體公司)

$$11. 1 - \frac{0.65 \times 0.8}{0.8} = 0.35$$

$$12. V_L = 640,000$$

$$K_{SU} = 0.12$$

$$D = 300,000$$

$$K_d = 0.08$$

$$n = 32,000$$

$$T_c = 34\%$$

$$V_L = 640,000 + 300,000 \times 34\% = 742,000$$

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$$V_L = S_L + D$$

$$D = 300,000, S_L = 442,000$$

$$K_{SL} = 0.12 + (0.12 - 0.08) \times (1 - 34\%) \times \frac{300,000}{442,000} = 0.1379$$

$$\begin{aligned} WACC &= 0.08 \times (1 - 34\%) \times \frac{300,000}{742,000} + 0.1379 \times \frac{442,000}{742,000} \\ &= 10.35\% \end{aligned}$$

13. $300 \times \frac{1.006^{-n} - 1}{0.006} = 20,000$

$$n = 55$$

$$0.08 \div 12 = 0.006\bar{6}$$

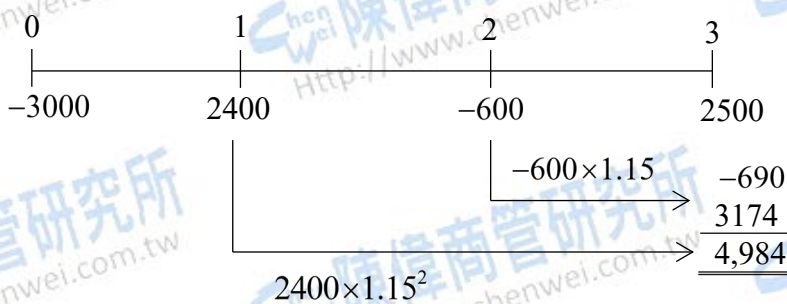
Ans: 55 payments

14. $2400,000 = 200,000 + 40,000 \times \frac{1 - (1+r)^{-60}}{r}$

$$r = 0.0029$$

$$R = 0.0029 \times 12 = 3.48\%$$

15. 甲.



乙. 由於兩投資計畫年限不等，故可用約當年令或重置令連評估

大風：

$$NPV = -3000 + \frac{2400}{1.15} + \frac{-600}{1.15^2} + \frac{2500}{1.15^3} = 309.94$$

$$EVA \times \frac{1 - 1.15^{-3}}{0.15} = 309.34$$

$$EVA = 135.48$$

冷風：

$$NPV = 227.86$$

$$EVA \times \frac{1 - 1.15^{-2}}{0.15} = 227.86$$

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EVA = 140.16

Ans: 冷風的約當年令較高，故應接受冷風

16. 見講義書內容